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ABSTRACT

A study was conducted to identify and measure theoretical dimensions of teacher empowerment in 307 venture capital schools in Ohio. (The Ohio state legislature established venture capital grants to support school improvement; these grants serve as catalysts for local schools to redesign their internal structures.) Data were gathered from 4,091 classroom teachers working in 183 schools. Teacher empowerment was measured by the School Participant Empowerment Scale (SPES) which considers six dimensions: decision-making, professional growth, status, self-efficacy, autonomy, and impact. Teacher respondents rated their overall sense of empowerment between the neutral midpoint (3.00) and the "agree" (4.00) point of the 5-point rating scale. The three dimensions on which the teachers rated their empowerment between "agree" and "strongly agree" were status (4.07), professional growth (4.19), and self-efficacy (4.12). The data suggested that, overall, teachers perceived that they had status within their schools, that their schools provided opportunities for them to grow as professionals, and that they had the skills and ability to help students learn. Teachers were more neutral about whether they had opportunities to participate in decision making, to interact with colleagues, and to make an impact beyond their classrooms. Findings suggested that: (1) professional development strategies to strengthen classroom teachers' skills and knowledge should be designed as both preservice and inservice programs; (2) teacher educators should help the classroom teacher build specific and general skills for working with and within groups; (3) experience and skill-development in information gathering, information synthesis, group processes, and consensus building should be included in teacher education programs; and (4) restructuring teams need to provide more opportunities for collaboration. (Contains 32 references.) (ND)

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A Study of Teacher Empowerment in 180 Restructuring Schools: Leadership Implications

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Introduction

As restructuring schools seek to provide environments for greater classroom teacher participation in planning and implementing changes to increase student learning, identifying the knowledge and skills that teachers need for this participation is a first step in improving teacher education programs to enhance them. Clearly, opportunities for new leadership roles for all teachers are promised in school restructuring literature. The purpose of this study of teacher empowerment in restructuring schools was to identify theoretical dimensions of teacher empowerment in the literature and to measure six of them, as a baseline study, in a large sample of classroom teachers working in public schools initiating restructuring efforts.

Public school reform efforts in the past ten years have concentrated on restructuring the institution (Holmes Group, 1986; Holmes Group, 1990; Levine, 1988; Goodlad, 1990; Elmore, 1990; Sarason, 1992; Sizer, 1992; Comer, 1988). "Behind the idea of restructuring schools is a fragile consensus that the public schools, as they are presently constituted, are not capable of meeting society's expectations for the education of young people," (Elmore, 1990, p. 1). The structure of the public school incorporates such elements as curriculum, teaching, management roles and responsibilities, incentives, and other practices that define school and district working environments.

The role of state legislatures in the public school reform effort has necessarily shifted. "If states are serious about improving the quality of education and striving for excellence, " Timar & Kirp (1989, p. 511) stated, "they must create a context in which organizational competence at the school level can develop." In the state of Ohio, this context has been created through funding from the state legislature. Venture capital grants have been made available to support school improvement. These venture capital grants were designed to serve as catalysts for local schools to redesign their internal structures. The venture capital grants were made available to individual schools for a period of five years on a renewable basis and were offered to "spark" school renewal efforts (Ohio Department of Education, July, 1993). The state of Ohio's commitment to restructuring was stated clearly:

> School improvement can only be achieved if there is a willingness to fundamentally restructure Ohio's education system. School improvement must focus on the development and interrelationships of all the main components of the system simultaneously - teaching and learning, assessment, governance, organization, and professional development. It must also focus on the culture of the system (Ohio Department of Education, July, 1993, p. 6).

Local school districts were asked to nominate schools for venture capital grants. Following the district's nomination, proposals were submitted by the individual schools describing the nature of the proposed reform. Factors were identified by the Ohio State Department of Education (July, 1993) as being essential to continuous school improvement. These evaluative criteria for the venture capital proposals were:

1. Evidence of community readiness and willingness to develop and implement new school improvement ideas and to anticipate change and reshape thinking and behavior.

2. School improvement strategies collaboratively designed by the community and integrated into the school's structure demonstrating that all children can learn.

3. Planned changes that are systematic and wide-ranging.

4. Evidence that community agencies and groups are thoughtfully and purposefully involved.

5. School improvement strategies that focus on learning.

6. Evidence that teachers are given expanded roles in planning and implementing change.

7. Policies and practices that contribute to the success of all students.

8. School improvement plans that leverage existing dollars and resources and identify new monies and resources for the support of improvement efforts (p. 10).

Using these criteria for evaluating the submitted proposals from the schools selected by their districts, three-hundred and seven schools were funded in the first two rounds, Fall 1993, and Spring 1994 (Venture Capital Assessment Team, October, 1994). Nine restructuring models were selected by the Ohio Department of Education as examples for schools. These were: Accelerated Schools, Classroom of the Future, Coalition of Essential Schools, Effective Schools Process, North Central School Improvement, Ohio Community Learning Experience, Outcome-Based Education, School Development Program and Success for All. Additionally, schools were invited to design their own restructuring models (Ohio Department of Education, July, 1993). As a condition for applying for funding, the individual schools had to provide evidence that at least 80% of the school staff was supportive of the proposed

ideas contained in the proposal as well as evidence that the building staff was poised and ready to undertake the proposed changes.

This study focused on criterion 6 of the Ohio Department of Education's evaluative criteria for funding Venture Capital Schools, "Evidence that teachers are given expanded roles in planning and implementing change," (Ohio Department of Education, July, 1993, p. 10). This focus was chosen as the role of the classroom teacher in school restructuring was described in educational literature as essential for increasing student learning, the goal of the Venture Capital Schools. Griffin (1991) noted that school restructuring will not improve schools if undertaken solely from an administrative or management point of view. Sarason (1992, p. 4) stated, "...there must be change in the power structure. Teachers must be an integral part of the decision-making if changes are to be truly effective, since it is up to the teachers to be the main implementors of change in our schools." Fullan (1993) emphasized, "Teachers as change agents are the *sine qua non* of getting anywhere," (p. 18). Although there was general agreement in the restructuring literature that teachers must take on new roles in the school, there were differences in perspective on what constituted teacher empowerment.

The literature on each of the nine restructuring models as well as the literature on teacher empowerment was reviewed for this study (Klecker, 1996). Rappaport (1987) described the construct of empowerment as, "a joining of personal competencies and abilities to environments that provide opportunities for choice and autonomy in demonstrating those competencies," (p. 122). One of the stated goals of

the Venture Capital Schools was to provide classroom teachers with a new environment and new opportunities. The necessary personal competencies and abilities of classroom teachers, dimensions of teacher empowerment, identified from the review of literature were: (1) accountability, (2) authority/leadership, (3) curriculum planning/design, (4) collegiality/collaboration, (5) decision-making, (6) impact/causal importance, (7) professional growth, (8) professional knowledge, (9) responsibiligy, (10) self-efficacy, (11) self-esteem, (12) status, and (13) training new teachers (e.g., Lightfoot, 1986; Levin, 1993; Comer, 1992; Lieberman & Miller, 1990; Lichenstein, McLaughlin, & Knudsen, 1991; Sprague, 1992; Rappaport, 1987; Sizer, 1984; Bredenson, 1989; Zeichner, 1991; Morris & Nunnery, 1993; Short, 1991).

The time of the study, February and March, 1995, was during the initial stages of restructuring by the individual schools. Thus, the picture of teacher empowerment is considered as baseline data to be compared with measures throughout the five-year Venture Capital School restructuring period.

Objectives of the Study

The objectives of this study were to examine and describe teacher empowerment in the 307 Venture Capital Schools funded in rounds I and II by the state of Ohio. Questions that guided this inquiry were:

1. What are the demographic characteristics, educational and professional backgrounds of teachers participating in the restructuring Venture Capital School projects with regard to the following variables: gender, age, race academic degrees, years of teaching experience in K-12 schools, years of teaching experience in current position and teaching level (i.e., elementary, middle school, secondary)?

2. What are the relationships between these demographic characteristics and teacher empowerment?

Methodology

This study was a descriptive research study using mailed survey questionnaires.

Sample

The population for the study was 10,544 classroom teachers working in the 307 Venture Capital Schools funded in rounds I and II by the state of Ohio. The 307 schools comprise approximately 10% of all schools in the state. As the goal of the Venture Capital Schools was to involve all of the classroom teachers in school restructuring, a census survey, including the total population was chosen for the study.

Instruments

Teacher Empowerment

Teacher empowerment was measured by the School Participant Empowerment Scale (SPES), developed by Short & Rinehart (1992). This instrument was chosen as it was the only one identified in the literature that measured as many as six of the identified dimensions of teacher empowerment. This 38-item instrument measured teacher empowerment on six dimensions: decision-making, professional growth, status, self-efficacy, autonomy, and impact. The SPES used a five-point Likert-type rating scale for each of the 38 items (1=strongly disagree to 5=strongly agree). Cronbach's coefficient alpha reliabilities for the subscales measuring the dimensions were: decision-making, .79; professional-growth, .66; status, .84; self-efficacy, .83;

autonomy, .83, and impact, .91. Alpha reliability for the total scale was .94 (Short & Rinehart, 1992). The six dimensions of teacher empowerment were defined by Short (1991) as:

> Decision-making relates to the participation of teachers in critical decisions that directly affect their work. In many cases, this means participation in decisions involving budgets, teacher selection, scheduling, curriculum, and other programmatic areas...
>
> Professional Growth refers to teachers' perceptions that the school in which they work provides them with opportunities to grow and develop as professionals, to learn continuously, and to expand one's own knowledge and skills through the work life of the school...
>
> Status refers to teachers' perceptions that they have professional respect and admiration from colleagues. Teachers feel that others respect their knowledge and expertise...
>
> Self-Efficacy refers to teachers' perceptions that they have the skills and ability to help students learn, are competent in building effective programs for students, and can effect changes in student learning...
>
> Autonomy refers to the teachers' sense of freedom to make certain decisions that control certain aspects of their work life. These aspects may be scheduling, curriculum, textbooks, and instructional planning...
>
> Impact refers to the teachers' sense that they have an effect and influence on school life. They feel that what they are doing is worthwhile, they are doing it in a competent manner, and they are recognized for their accomplishments... (p.9-14).

Demographic Data

Demographic data for the classroom teachers were collected through self-report questionnaires included in the mailing.

Data Collection

As the questions for the study sought responses from all of the classroom teachers within each building (as well as the building principal for the larger study), a

metaphor, "a snapshot in time," was used in the cover letter designed to be sent to each Venture Capital School coordinator. The number of classroom teachers within each building was identified from the Ohio Educational Directory (Ohio Department of Education,1994-95). The number of classroom teachers within each building ranged from 7 to 28. A packet containing the cover letter, a questionnaire for each classroom teacher and building principal (required for questions in the larger study) in the school was mailed to each Venture Capital School coordinator, with a self-addressed postage-paid return envelop, February 13, 1995. An envelope was attached to each instrument with instructions to the respondents to complete the survey, seal the envelope, identify the envelope with his or her initials only and return it to the Venture Capital School coordinator. (This minimal identification was required to aid the Venture Capital coordinator with data collection). The "picture" of the school requested in the cover letter was defined as a response from at least 80% of the classroom teachers and the building principal. The cover letter was headed by a small color reproduction of a "primitive" style painting of an early Ohio school. An 8 x 10 signed, limited edition, color reproduction of the painting was promised to each school returning a "total picture." An original 16 x 20 acrylic "primitive" painting of the school with the highest return rate was promised in the cover letter. Follow-up phone calls the week after the mailing found that the Venture Capital coordinators had received a request for extensive information from the state's evaluators the same day they had received the questionnaires for this study. Further follow-up phone calls were

considered to be counter-productive. This coincidence had a marked effect on the ability of the Venture Capital Schools to respond to the survey.

Return Rates

Fifty-six schools responded with 100% of the classroom teachers; 48 schools responded with between 80-99% of the classroom teachers; 47 schools had a classroom teacher return rate between 50-79%; 23 schools had a classroom teacher return rate between 30-49%; 9 schools responded with 29% or fewer classroom teacher responses. Overall return rates were: schools (n=183) 59.6%, and teachers (n=4091) 38.8%. Clearly, more responses were received from schools with a small number of teachers. Two-way ANOVAs by gender and return rate by item were used to compare classroom teachers' responses to the 38 items of the SPES in each return-rate group with the 100% return-rate group. No statistically significant ($p<.01$) interactions were found by gender and return-rate. Statistically significant ($p<.01$) differences were found by gender on 9 items in the comparison of the 80-99% return-rate group and the 100% return-rate group, and on 4 items in the comparison of the 29% or fewer return-rate group with the 100% return-rate group. Statistically significant ($p<.01$) differences by return-rate were found on 2 or fewer or the 38 items on each of the two-way ANOVAs comparing groups. Because there were so few differences across the return rate subgroups, the data were aggregated for further analysis.

Signed, limited edition, color reproduction prints were sent to 104 schools. One of the fifty-six schools responding with 100% of the classroom teachers and the

building principals was chosen at random and an original acrylic painting was completed for that school's teachers' lounge as promised in the cover letter. A summary of the study--with aggregate and individual school teacher data--was sent to each of the responding schools.

Representativeness of the Sample

Chi-square tests of goodness of fit were used to compare the sample of 183 Venture Capital Schools with the 307 schools in the population. The sample schools were found to representative of the population by level (i.e., elementary-55%, middle school/jr. high school-20%, high school-25%), restructuring model (10), round of funding (2), and region of the state (8). The teacher sample was representative of the teachers in the state of Ohio by gender.

Data Analysis

The data from the classroom teachers' responses to the questionnaires were coded, entered, and analyzed on the IBM mainframe computer at The Ohio State University using SAS by the researcher. First, the stability and reliability of the subscales of the School Participant Empowerment Scale were explored with factor analyses.

School Participant Empowerment Scale

The subscales identified by Short & Rinehart (1992) were found to be unstable with the large dataset of this study. New subscales were identified through factor analysis and the content validity of the newly-created subscales was reviewed (Klecker, 1996). The autonomy subscale was renamed "autonomy in scheduling" as

the three items loading on this subscale measured teacher responses to questions about scheduling. Cronbach's coefficient alpha reliabilities for the newly-created subscales were: Status (6 items) .84; Professional Growth (4 items) .70; Self-Efficacy (12 items) .89; Decision Making (8 items) .80; Impact (5 items) .83; and Autonomy in Scheduling (3 items) .83. Table 1 presents the 38-items of the School Participant Empowerment Scale with the six dimensions defined by Short (1991). The subscales were changed insofar as the item-loadings are different from those identified by Short & Rinehart (1992).

Table 1. Subscales Created from a Principal Axis Factor Analysis with a Harris-Kaiser Oblique Rotation of the Responses from 4091 Teachers

Factor 1 - Status
2. I function in a professional environment
3. I believe that I have earned respect.
8. I am treated as a professional.
15. I have the respect of my colleagues.
20. I work at a school where kids come first.
21. I have the support and respect of my colleagues.
Factor 2 - Professional Growth
12. I participate in staff development.
14. I have the opportunity for professional growth.
16. I feel that I am involved in an important program for children.
26. I am given the opportunity to continue learning.
Factor 3 - Self Efficacy
4. I believe that I am helping kids become independent learners.
6. I believe that I have the ability to get things done.
9. I believe that I am very effective.
10. I believe that I am empowering students.
18. I believe that I am having an impact.
22. I see students learn.
27. I have a strong knowledge base in the areas in which I teach.
28. I believe that I have the opportunity to grow by working daily with students.
29. I perceive that I have the opportunity to influence others.
32. I perceive that I am making a difference.
34. I believe that I am good at what I do.
36. I perceive that I have an impact on other teachers and students.
Factor 4 - Decision Making
1. I am given the responsibility to monitor programs.
7. I make decisions about the implementation of new programs in school.
11. I am able to teach as I choose.
13. I make decisions about the selection of other teachers for my school.
17. I have the freedom to make decisions on what is taught.
19. I am involved in school budget decisions.
23. I make decisions about curriculum.
24. I am a decision maker.
Factor 5 - Impact
25. I am given the opportunity to teach other teachers.
31. I have the opportunity to collaborate with other teachers in my school.
33. Principals, other teachers, and school personnel solicit my advice.
37. My advice is solicited by others.
38. I have an opportunity to teach other teachers about innovative ideas.
Factor 6 - Autonomy in Scheduling
5. I have control over daily schedules.
30. I can determine my own schedule.
35. I can plan my own schedule.

After exploring the subscales of the School Participant Empowerment Scale with the total dataset, schools with responses from four or fewer teachers were dropped from the analysis. This was done as some of the questions in the larger study used the school as the unit of analysis and this small number of teacher responses was not considered to be representative of the teachers in the school. Three schools were dropped using this criterion. The resulting data contained responses from 4,084 teachers in 180 schools. Question 1 was explored using frequencies and percentages calculated for the teachers' demographic characteristics and were presented in table form. With respect to Question 2, differences in subscale and total scale scores of the School Participant Empowerment Scale were explored with one- and two-way ANOVAs. Two-way ANOVAs were used to explore differences by gender and teaching level (elementary, middle school/jr. high school, high school) as these teacher demographics are related in the public schools, for example, there are proportionately more female than male teachers in the elementary schools. The SAS GLM procedure was used for the analyses as the groups had unequal Ns. Type III Sum of Squares tables were used to calculate the results of the two-way ANOVAs as these presented a non-hierarchical partitioning of variance. The Scheffe method was used to follow-up significant omnibus F tests. Alpha was set at .01 for both the overall F test and the Scheffe follow-up tests. As the N of the study was large, it was recognized that statistical differences might be found that might not be meaningful, thus, the additional criterion of effect size was added to interpret differences by

demographic variables. This decision was guided by a discussion by Keppel (1982, p. 89):

> The problem with such a comparison of F statistics is that the size of the F ratio is affected by other factors in addition to the size of the treatment effects, the most obvious of which is *sample size* [italics in original]. Thus, a large F may imply that treatment effects are large, or that sample size was large, or that both factors are contributing to the observed value of F.

Results

Demographic Characteristics

Table 2 presents the teacher demographic data.

Table 2. Demographic Characteristics of Classroom Teachers Responding to the Survey of Restructuring Venture Capital Schools in Ohio

Variable	N*	%
Gender		
Female	2936	72.4
Male	1117	27.6
Age		
22-29	582	15.6
30-39	882	23.7
40-49	1605	43.1
50-59	605	16.2
60 and Over	53	1.4
Race		
African-American	253	6.3
Asian	23	0.6
Caucasian	3694	91.8
Other	50	1.2
Academic Degrees		
Bachelors Degree	1973	49.3
Masters Degree	1997	49.9
Doctoral Degree	33	0.8
Years of Teaching Experience		
Under 5 years	739	18.3
6-10 years	615	15.2
11-15 years	582	14.4
16-20 years	792	19.6
21-25 years	795	19.6
Beyond 26 years	523	12.9
Years of Experience in Current Position		
Under 5 years	1591	39.2
6-10 years	919	22.7
11-15 years	518	12.8
16-20 years	455	11.2
21-25 years	361	8.9
Beyond 26 years	211	5.2
Teaching Level		
Elementary	1729	42.3
Middle School/Jr. High School	827	20.2
High School	1376	33.7
"Other" Schools	152	3.7

*Frequencies may not sum to N because of non-response to the item.

Seventy-two percent of the teachers responding were female, 28% were male (Table 2). The gender proportions were similar to national proportions; according to 1991 data of all teachers in the United States reported in the Digest of Educational Statistics (Snyder & Hoffman, 1994), 72.1% of the teachers were female and 27.9% were male. Information on the age of the teachers was collected as a "fill-in" question; the range was from 22 to 71 years, the mean age was 41.2. This, also, is comparable to the national mean age for teachers, 42 years (Ibid). The categories presented in Table 2 were created to provide a more complete picture of the ages of the teachers in the study. The modal age of this group of teachers was 40-49 (43.1%). The 40-49 age category was also the national mode with 38% of teachers in the United States in 1991 in this category (Ibid). Ninety-two percent of the teachers responding to the survey were Caucasian, 6% were African-American, fewer than 1% were Asian, and 1% responded to the "other" category of the item. This number of Caucasian teachers in the Venture Capital sample (92%) was slightly higher than the national proportion (87%). Nationally, in 1991, 8% of the teachers in the teaching force were African American, 1% were Asian, and 4% were reported as "other" (Ibid).

The teachers were divided almost equally in their responses to the "Academic Degrees" question. In the sample, 49% had Bachelors Degrees, 50% had Masters Degrees, and 1% had Doctoral Degrees. Nationally 51.9% of the teachers had Bachelors Degrees, 42.1% had Masters Degrees, 0.5% had Doctorates, and 4.6 had Educational Specialists Degrees. For the state of Ohio 54.5% of the teachers had Bachelors, 41.3% had Masters Degrees, 2.4 had Educational Specialists Degrees, and

0.6% had Doctorates. The Venture Capital teachers were similar to both the national and state statistics, however, the category of "Educational Specialist," was not included in the Venture Capital demographic questionnaire.

The Venture Capital teachers were relatively evenly categorized within the "Years of Teaching Experience" as well. The distribution was relatively flat; twenty percent had been teaching 16-20 years and 20% had been teaching 21-25 years. Eighteen percent of the teachers had been teaching fewer than five years, 15% had 6-10 years of teaching experience, 14% had taught 11-15 years, and 12% had been teaching longer than 26 years. The national median for years of teaching experience in 1991 was 15 years (Snyder & Hoffman, 1994), thus, the teachers in Venture Capital Schools had proportionately more years of teaching experience than the teachers in the national census.

Most of the teachers had been working in their current position fewer than five years (39%). Twenty three percent had held their current position 6-10 years, 13% responded to the 11-15 years category, 9% had held their current position 21-25 years and 5% had been teaching in their current position for more than 26 years. Most of the teachers were teaching in elementary schools (42%); twenty percent were middle school/jr. high school teachers; thirty-four percent were high school teachers, and 4% were teaching in "other" schools, that is, vocational and magnet schools. Statistics available on the national teaching population were available only as elementary (52%) and secondary (48%) (Ibid). It was difficult to compare the data in this study with these categories as the middle school/jr. high school category in this study included

grades 5 through 9 (or some combination thereof according to school). The sample of schools in this study was representative of the population of Venture Capital Schools by teaching level.

The Ohio Department of Education, Education Management Information System provided demographic data for classroom teachers teaching in the state of Ohio at the time of the survey for this study. Subgroups of classroom teachers provided by the state were: kindergarten, elementary, and secondary. The State Department again subsumed jr. high/middle school under the "elementary" and "secondary" categories, thus, comparisons necessarily were made again with the "overall" statistics only. There were 79,375.65 classroom teachers teaching in the state of Ohio in the spring of 1995. Twenty-two thousand seven hundred and eighty one were male (28.7%); 56,594.55 were female (71.3%). These state-wide proportions reflected the proportions in the national population of teachers; female, 71.2% and male, 27.9% (Snyder & Hoffman, 1994). The 4,060 teachers in the sample responding to the question on gender were compared, using a Chi-square test of goodness of fit, with classroom teachers working in the state of Ohio in the Spring of 1995 on gender.

Table 3. A Chi-square Test of Goodness of Fit for the Classroom Teacher Sample to the Classroom Teachers in the State of Ohio by Gender

	Female	Male
Expected	2894.78	1165.22
Observed	(2936)	(1117)

$X^2(1, N = 4060) = 2.799, p > .05$

The calculated Chi-square value was 2.799 (Table 3). With one degree of freedom at the .05 level of significance, the tabled Chi-square was 3.84. Thus, with a

95 percent confidence level, the sample represents the population of classroom teachers in the state of Ohio on gender.

Relationships of Demographics to Teacher Empowerment

Before examining the means and standard deviations of the six subscales of the School Participant Empowerment Scale by the teachers' demographic characteristics, overall descriptive data were presented in Table 4.

Table 4. Means and Standard Deviations of Classroom Teachers' Responses to the School Participant Empowerment Scale and Subscales

Subjects N	Status 6 Items	Prof. Growth 4 Items	Self-Efficacy 12 Items	Decision Making 8 Items	Impact 5 Items	Autonomy in Scheduling 3 Items	Total Scale 38 Items
	4.07	4.19	4.12	3.43	3.57	3.08	3.82
4084	0.61	0.63	0.51	0.69	0.78	1.07	0.51

Note: Scale range = 1-5 1=strongly disagree 5=strongly agree
Top number in cell= mean bottom number in cell= std. dev.

The scale midpoint for the Likert-type five point scale was 3.00, identified as "neutral." Mean responses for each of the six subscales and the total subscale score were all above the scale midpoint (Table 4). That is, each subscale had a positive rating. The subscale with the highest mean was Professional Growth (4.19); the subscale with the lowest mean was Autonomy in Scheduling (3.08). The mean for Autonomy in Scheduling was just slightly above the "neutral" point of the scale. The means for Decision Making (3.43), Impact (3.57) and Total Scale score (3.82) all fell between the "neutral" midpoint of the scale and scale point 4 "agree." The means for Status (4.07), Professional Growth (4.19), and Self-Efficacy (4.12) fell between the rating scale points of "agree" and "strongly agree." Responses to the 3-Item

Autonomy in Scheduling subscale had the largest variance (SD 1.07) and responses to the 12-Item Self-Efficacy subscale and 38-Item Total Scale had the smallest variance (SD .51). The means and standard deviations appeared to reflect reasonable values of central tendency and variability.

One- and two-way ANOVAs were used to explore differences in the subscale and total scale score of the School Participant Empowerment Scale by the following teacher demographic characteristics: gender, age, race, academic degree, years of teaching experience, years of teaching experience in current position, and school level (elementary, middle school/jr. high school, and high school).

Table 5 presents the subscales and total scale of the School Participant Empowerment Scale that had statistically significant, ($p<.01$) differences by teacher demographic variables with an effect size (epsilon squared) of at least .01.

Table 5. Summary of the Significant* Differences Found by the ANOVAs of the School Participant Empowerment Scale by Teachers' Demographic Characteristics With Effect Size of at Least .01

School Participant Empowerment Scale Subscale Dimensions of Teacher Empowerment	Demographic Characteristic	Difference by Demographic Characteristic ($p<.01$)	Effect Size Epsilon Squared
**Status Subscale (6 Items) Refers to teacher perceptions that they have professional respect and admiration from colleagues...	Teaching Level	The mean for elementary school teachers (4.19) was higher than the mean for high school teachers (3.94).	.013
Professional Growth Subscale (4 Items) Refers to teachers' perceptions that the school in which they work provides them with opportunities to grow and develop as professionals...	Gender	The mean for female teachers (4.25) was higher than the mean for male teachers. (4.04).	.010
Impact Subscale (5 Items) Refers to the teachers' sense that they have an effect and influence on school life...	Teaching Level	The mean for elementary school teachers (3.71) was higher than the mean for high school teachers (3.41).	.013
***Autonomy in Scheduling Subscale (3 Items) Refers to the teachers' sense of freedom to make certain decisions that control scheduling in their work life...	Teaching Level	The mean for elementary school teachers (3.41) was higher than the mean for middle school/jr. high school teachers (2.87) and the mean for high school teachers (2.80).	.035
Total Scale Score (38 Items) Empowerment, defined as a process whereby school participants develop the competence to take charge of their own growth and resolve their own problems...	Teaching Level	The mean for elementary school teachers (3.95) was higher than the mean for high school teachers (3.78).	.021

*$p<.01$ **Dimension definitions by Short (1991)***New Subscale Dimension from this study
Note: Scale range: 1-5 1=strongly agree 5=strongly disagree

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There were no statistically significant ($p<.01$) differences with effect sizes of .01 or greater on either the Decision Making or the Self-Efficacy subscales. The Decision Making subscale, "...relates to the participation of teachers in critical decisions that directly affect their work. In many cases, this means participation in decisions involving budgets, teacher selection, scheduling, curriculum, and other programmatic areas...," (Short, 1991, p. 10). The Self-Efficacy subscale, "...refers to teachers' perceptions that they have the skills and ability to help students learn, are competent in building effective programs for students, and can effect change in student learning...," (Short, 1991, p. 12).

The differences by gender and school level were found by two-way ANOVAs by gender and level of subscales. There were no statistically significant ($p<.01$) interactions by gender and level on any of the two-way ANOVAs. On the Status Subscale there was a statistically significant ($p<.01$) difference by school level with an effect size of .013. There was no statistically significant ($p<.01$) difference by gender on the Status subscale. Elementary teachers in the Venture Capital Schools rated their empowerment (4.19) higher than did high school teachers (3.94) (Table 5). On the Professional Growth Subscale female teachers had higher ratings (4.25) than did male teachers (4.04), however, both groups rated their empowerment on the Professional Growth scale above the 4.00 "agree" point. The difference by gender was statistically significant ($p<.01$) with an effect size of 0.10. There was a statistically significant ($p<.01$) difference with an effect size of .013 by school level on the Impact subscale. The mean for elementary school teachers (3.71) was higher than the mean

for high school teachers (3.41). The ratings of empowerment by both groups on the Impact subscale was between the "neutral" scale midpoint (3.00) and "agree" (4.00).

The Autonomy in Scheduling subscale was created through the data analysis for this study. This subscale was shortened to "autonomy in scheduling" as that was the only aspect of autonomy in Short's (1991) definition of the dimension that was measured by the three items of the new subscale. This subscale was a less stable measure than the others because of the number of items. There was a statistically significant ($p<.01$) difference by teaching level in the teachers' responses to this subscale; the mean for elementary school teachers (3.41) was higher than the mean for middle school/jr. high school teachers (2.87) and the mean for high school teachers (2.80). The effect size for teaching level on the Autonomy in Scheduling subscale was .035., the largest effect size found by demographic variable on any of the subscales or total scale scores. The mean ratings of the teachers indicated that elementary school teachers rated their autonomy in scheduling above the scale "neutral" midpoint (3.00). The teachers in middle school/jr. high school and high school rated their autonomy in scheduling below the scale midpoint and "disagree" that they had autonomy over scheduling.

The Total Scale score measured the total construct of teacher empowerment. Short (1991, p. 3) defined empowerment, "Empowerment, defined as a process whereby school participants develop the competence to take charge of their own growth and resolve their own problems..." Difference by teaching level was the only teacher demographic difference on the Total Scale score. The mean for elementary school teachers (3.95) was higher than the mean for high school teachers (3.78).

Both groups rated their empowerment just below the "agree" (4.00) point of the scale. The effect size for school level on the total School Participant Empowerment Scale was .02 (Table 5).

A discussion by Keppel (1982) illuminated the meaning of "small" effects and the general usefulness of measuring effect size:

> The index can be especially informative when an investigator begins work in a new and previously unanalyzed research area....Initial explorations in a research area can often be characterized as reflecting relatively large treatment effects. In fact, it is usually the size of the new finding that draws researchers into these new fields. Subsequent research will usually not be concerned with the original finding, however, but with a refinement of the discovery into component parts....Thus, we could say that one indication of a "healthy" and productive area of research is a preponderance of experiments with relatively *small* (italics in original) values of (omega squared)! (pp. 94-95).

Thus, although the effect sizes were small in this study, the differences found are statistically meaningful and indicate promising areas for further research.

Discussion

Both educational theorists and practitioners have found teacher empowerment difficult to define. In the literature, empowerment was seen by some researchers (e.g., Maeroff, 1988) as something that must be bestowed upon teachers from a point above within the public school hierarchy. On the other hand, some restructuring models (e.g., Ohio Community Learning Experience) offered as examples by the Ohio Department of Education (July, 1993) called for the dissolution of the traditional public school hierarchical structure (Simpkins, 1992). Leaving the definition of the new roles for classroom teachers to the individual schools would be philosophically consistent with the "new wave" of school reform as this most recent approach to reform is focused at the school level. One could argue that the advocated local decision-

making should encompass customized definitions of "teacher empowerment," as well. Teacher empowerment could be defined by each school; it could be defined by each individual teacher--which, of course, it is. Nevertheless, this study attempted to summarize the definitions of "teacher empowerment" found in the educational literature, to operationalize the construct, and to measure some of the dimensions of the construct in a large population of teachers working in individualized restructuring school environments funded by the state of Ohio through Venture Capital Grants.

Dimensions of teacher empowerment identified in the literature were: (1) accountability, (2) authority/leadership, (3) curriculum planning/design, (4) collegiality/collaboration, (5) decision-making, (6) impact/causal importance, (7) professional growth, (8) professional knowledge, (9) responsibiligy, (10) self-efficacy, (11) self-esteem, (12) status, and (13) training new teachers. The School Participant Empowerment Scale (Short & Rinehart, 1992) was chosen for this study as it had been developed through Short's empirical work and research in, "The Empowered School District Projected," conducted on school empowerment in nine school districts across the country from 1989 to 1992 (Short, 1991). Further, the School Participant Empowerment Scale was the only instrument identified through a review of the literature that measured as many as six of the suggested dimensions of the construct.

This study was designed as a "snapshot in time," specifically February and March, 1995, the beginning of the implementation of restructuring efforts by 307 Venture Capital Schools funded by the state of Ohio in rounds I and II of funding. Differences in teacher empowerment subscale and total scale scores were explored by teacher demographic characteristics. After the data were collected and analyzed,

individual reports describing the study, the construct--with definitions of the six measured dimensions--of teacher empowerment, and results of the findings were returned to each of the participating schools. Teacher data were returned both as aggregate means and standard deviation for all teachers and as means and standard deviations for the teachers in individual schools.

This section includes a discussion of the following aspects of the study: the data collection; the sample of teachers; overall measures of teacher empowerment; and the differences in teacher empowerment by demographic variables.

Data Collection

The use of the "a snapshot in time" metaphor for data collection used in this study (Klecker & Loadman,1995) had the following advantages, it: (1) clarified the request for information, (2) defined the time that would be required (approximately 5 minutes) to "take the picture," that is, complete the questionnaires, (3) made the data collection task relatively simple for the Venture Capital School coordinator, (4) ensured confidentiality of response (through the individual sealable envelopes provided with each questionnaire), (5) limited the study to a "point in time." and (6) promised the results of the study to the individual schools. The use of a census survey, including all of the classroom teachers in each school (as well as the building principal), reinforced the school-wide nature of the Venture Capital School efforts. The timing of the mailing, coinciding with the state evaluation team's extensive request for data, was unfortunate. The coincidence had a marked effect on the ability of the Venture Capital Schools to respond to the survey. The extent of the effect of this timing was not measurable. Four Venture Capital Coordinators took the time to write notes of

apology for not having the time to respond to the survey. Without the planned follow-up phone calls, return rates may have been suppressed.

The Demographic Characteristics of Teachers in Venture Capital Schools

The purpose of this study was to describe the teachers in the Venture Capital Schools in the state of Ohio. The picture of the classroom teachers as described by the measured demographic variables clearly overlays the picture of teachers both in Ohio and in the national population (Snyder & Hoffman, 1994) with two exceptions. The sample data had fewer minority teachers than the national population of teachers and the teachers in the sample had slightly more teaching experience than did teachers in the national population. The data from the large sample of teachers in this study furnish a rich data source for exploring teacher empowerment.

Relationships Between Demographic Characteristics and Teacher Empowerment

Using the School Participant Empowerment Scale with newly-created subscales (Klecker, 1996), differences were observed in the self-rating of dimensions of empowerment by classroom teachers in the Venture Capital Schools in the initial stages of restructuring. At the early point in time of the study, the teachers in the Venture Capital Schools rated their overall empowerment just below the "agree" point on the scale (3.82) (Table 4). Clearly, the level of participation by teachers outlined by the goals of the Venture Capital Schools had not yet taken place. This mean may be regarded as a "baseline" mark of teacher empowerment. The following paragraphs more fully describe the School Participant Empowerment Scale subscales and explore the teachers' ratings in depth.

Status Subscale

> Status refers to teacher perceptions that they have professional respect and admiration from colleagues. Teachers feel that others respect their knowledge and expertise...(Short, 1991, p. 10).

The Status Subscale had an overall mean of 4.07 with a standard deviation of 0.61 on the 6-item subscale. The 5-point rating scale of the SPES had a scale range of 1=strongly disagree to 5=strongly agree with the scale midpoint of 3.00 defined as "neutral." The mean of the Status subscale was slightly above the "agree" point. Overall, classroom teachers in the Venture Capital Schools indicated that their empowerment measured in terms of their Status within their schools was very slightly above the point of agreement. Item 15, "I have the respect of my colleagues," had the highest mean (4.22) of the 6 items of this subscale. The item within this subscale with the lowest mean (3.89) was Item 20, "I work at a school where kids come first." The rating of this item below the "agree" point raises questions about teachers' perceptions of the schools' goals. Item 20 contributed to the overall reliability of the Status subscale, however, how the content of this item fits on the dimension of "Status" is unclear. Perhaps, it could be argued that working in a school that is known as one as one, "where kids come first," contributes to the status of a teacher.

A statistically significant ($p<.01$) difference by teaching level with an effect size (epsilon squared) of .013 was found on the Status subscale by a two-way ANOVA by gender and school level. There were no statistically significant ($p.<.01$) interactions by gender and school level, and no difference (as measured by the two criteria) by gender on the Status subscale. Elementary school teachers (4.19) had a higher mean rating on the Status Subscale than did high school teachers (3.94). Elementary

teachers rated their status above the "agree" point of the rating scale, however, high school teachers' ratings of status were just below the point of agreement. This comparison of elementary school teachers and high school teachers, while of statistical interest, is difficult to interpret in a meaningful way. The teaching environments and tasks of elementary and high school teachers are very different and may explain this difference. Teacher empowerment could be better explored by making comparisons within the teaching level categories rather than across them. Such analyses of the study data are beyond the time scope of this study.

Professional Growth Subscale

> Professional Growth refers to teacher's perceptions that the school in which they work provides them with opportunities to grow and develop as professionals, to learn continuously, and to expand one's own knowledge and skills through the work life of the school...(Short, 1991, p. 10).

The overall mean of the Professional Growth Subscale (4.19) was slightly above the "agree" point (4.00). The standard deviation for the Professional Growth 4-item subscale was 0.63 (Table 4). The teachers in the Venture Capital Schools, at the initial stages of restructuring, agreed that they had opportunities for professional growth. The variation on responses to items within this subscale may be used to examine and possibly improve areas of professional growth. Item 26, "I am given the opportunity to continue learning," had the highest mean rating (4.28). This is a very general item, that is, it is not clear whether these opportunities are made available within the school or, perhaps, through fee-waivers, at a college or university. The item on the Professional Growth subscale with the lowest mean (3.90) was Item 12, "I participate in staff development." The rating for this item was below the "agree" (4.00) scale point, indicating that staff development as a facilitator for professional growth

should be reviewed. The overall mean score on the professional growth subscale indicated that teachers see opportunities within the Venture Capital Schools. The mean rating of just above the "agree" scale point indicates that there is more that can be done within the schools to help teachers become true professionals.

There was a statistically significant ($p<.01$) difference with an effect size (epsilon squared) of .01 by gender on this subscale (Table 5). Again, this difference was found by a two-way ANOVA by gender and school level. There were no statistically significant ($p<.01$) interactions by gender and level. There was no statistically significant ($p<.01$) difference with an effect size of .01 or greater by school level. The mean for female teachers (4.25) was higher than the mean for male teachers (4.04). Both female and male classroom teachers perceived that there were opportunities for professional growth within their schools. This is perhaps an indication that the opportunities for professional growth offered for teachers within the Venture Capital Schools are more appealing to female teachers. In a national follow-up survey of teacher education graduates, female teacher education graduates most often indicated that they planned to continue teaching as a career; a larger proportion of male teacher education graduates indicated that their plans were to become principals (Loadman & Klecker, 1993). Perhaps male respondents conceptually separate professional growth as "growth as a teacher" and consider movement toward the principalship as a "change in role." The staff development activities planned to help teachers grow as teachers would not have as much appeal to male teachers anticipating a change in role within the school. As schools restructure and teachers

and principals share decision-making within the school, over time, a career in teaching may become more appealing to men.

Self-Efficacy Subscale

> Self-Efficacy refers to teachers' perceptions that they have the skills and ability to help students learn, are competent in building effective programs for students, and can effect changes in student learning...(Short, 1991, p. 11).

The 12-item Self-Efficacy subscale had the highest number of items and the lowest standard deviation (0.51) of the six subscales. The mean on the Self-Efficacy subscale was 4.12 (Table 4) indicating that teachers in the Venture Capital Schools at the early stages of restructuring agreed that they had the ability to effect changes in student learning.

There were no differences by demographic characteristics on the Self-Efficacy Subscale. This finding is different from that of Ruscoe, Whitford, Egginton & Esselman (1989). In their survey of 1065 teachers and 85 administrative staff employed in professional development schools, they found that women generally expressed a stronger sense of efficacy than did men; elementary teachers expressed a stronger sense of efficacy that did middle school teachers, who in turn expressed a stronger sense than did secondary teachers. Data from the current study with a large sample of classroom teachers and a sound subscale measuring self-efficacy, found uniform agreement across demographic variables.

This dimension of teacher empowerment would seem to be the one most closely related to the goal of the Venture Capital Schools--an increase in student learning. The teachers working in the schools undertaking restructuring indicated a slight level of agreement that they had the skills and ability to help students learn and

were competent in building effective programs for students. Ideally, classroom teachers will find new opportunities to use and develop these perceived competencies in restructuring environments. In turn, as student learning increases, the classroom teacher's perception of self-efficacy should also increase.

Will the individual classroom teacher's sense of self-efficacy increase or decrease with the rise or fall of student achievement scores within his or her classroom (considering the expectations of the Venture Capital Schools)? Or, would a teacher's sense of self-efficacy increase simply through involvement in school restructuring efforts having the goal of increased student learning? What part does time, as a variable, play in change in a classroom teacher's sense of self-efficacy? Alternatively, is the teacher's sense of self-efficacy related at all to the achievement scores of students in his or her classroom or his or her school? What evidence does he or she use to self-rate self-efficacy as a dimension of teacher empowerment? The Venture Capital Schools, with their efforts extending over a five-year time period, are an excellent place to explore such questions. The findings from this study may provide useful baseline measures for further research.

Decision Making Subscale

> Decision Making relates to the participation of teachers in critical decisions that directly affect their work. In many cases, this means participation in decisions involving budgets, teacher selection, scheduling, curriculum, and other programmatic areas...(Short, 1991, p. 8).

The overall mean of the Decision Making subscale (3.43) was approximately mid-way between the "neutral" 3.00 midpoint of the rating scale and the 4.00 point of "agree," (Table 4). The standard deviation for the 8-item Decision Making subscale was 0.69. The comparatively low mean rating on the Decision Making subscale was

somewhat surprising as decision making was the dimension most often cited in the teacher empowerment literature. Teachers in the Venture Capital Schools in the initial stages of restructuring reported that they were between neutral and agreeing that they were involved in school decisions. An examination of some of the item means illuminated areas of decision making measured by this subscale. Items 13 and 19 of this subscale had means of 2.55 and 2.56 respectively (well below the "neutral" scale mean of 3.00). Item 13 was the lowest rated item in the 38-item School Participant Empowerment Scale. This item was, "I make decisions about the selection of other teachers for my school." Item 19 was, "I am involved in school budget decisions." Clearly, the teachers within the schools in the early stages of restructuring were not involved in these school decisions that have been traditionally reserved for building principals and/or central office personnel. The highest item mean (4.00) on the Decision Making subscale was for item 11, "I am able to teach as I choose." This item reflected teachers' empowerment within the classroom, a power that teachers have traditionally held. Note, however, that the mean rating for this item was no higher than the "agree" point of the scale. If the Venture Capital Schools are true to the goals of the program, specifically criteria 6 (Ohio Department of Education, July, 1993, p. 10), the measure of empowerment on the Decision Making subscale should increase over the five-year restructuring period. Clearly, it is currently not at a level that would suggest empowerment on the dimension.

There were no differences by demographic characteristics on the Decision-Making subscale as measured by one- and two-way ANOVAs with a significance level

of .01 on both the omnibus F and the Scheffe follow-up tests with the additional criterion of an effect size (epsilon squared) or .01 or greater.

Impact Subscale

> The Impact Subscale refers to the teachers' sense that they have an effect and influence on school life. They feel that what they are doing is worthwhile, they are doing it in a competent manner, and they are recognized for their accomplishments...," (Short, 1991, p. 10).

The overall mean on the Impact Subscale was 3.57, slightly beyond the midpoint between the 3.00 scale mean of "neutral" and point 4 of the rating scale, defined as "agree," (Table 4). This relatively low rating of the sense of empowerment by the teachers in the Venture Capital Schools on the Impact subscale was surprising. As the restructuring plans for the individual schools are followed, with new roles for classroom teachers, the teachers' sense of the impact they have within the school should be greater. The Impact subscale had moderately high (0.50 or above) positive correlations with each of the other five subscales. This statistical correlation is not surprising as, substantively, unless the teacher has a strong sense of status, professional growth, self-efficacy, and opportunities for decision-making within the school, his or her sense of impact would be low.

The item with the highest mean (3.79) on the Impact subscale was Item 31, "I have the opportunity to collaborate with other teachers in my school." Note that the mean of this item, while the highest of the subscale, was below the "agree" point. This strongly indicated that teachers in the Venture Capital Schools felt that they have not had a strong impact with other teachers. Opportunities need to be created by the school restructuring teams for impact to occur and be realized by the teaching staff. One way for this to happen is for the Venture Capital Schools build into their plans

opportunities for teachers to interact with their colleagues. The subscale item with the lowest mean was Item 25 (3.31), "I am given the opportunity to teach other teachers." The slight agreement with this item indicated that there are teachers who have "been given" the opportunity to teach other teachers, however, this appears to be the exception rather than the rule.

The two-way ANOVA by gender and level of the Impact subscale found a statistically significant ($p<.01$), difference by school level with an effect size (epsilon squared) of .013 (Table 5). There were no statistically significant ($p<.01$) interactions between gender and school level. There was no statistically significant ($p<.01$) difference by gender on this subscale. The mean for elementary school teachers (3.71) was higher than the mean for high school teachers on this subscale (3.41). Again, comparing elementary school teachers with high school teachers is difficult because of the different environments in which they work, however, it should be noted that the mean for neither group indicated strong agreement that their sense of empowerment with regard to impact.

The higher mean score rating by elementary teachers than high school teachers on the Impact subscale may be explained by the difference in the school environments in which they work. Elementary teachers, in general, work with the same students all day for a school year. With this constant contact, elementary school teachers more often see change, growth, and learning take place in their students. Elementary school aged students express their appreciation to their teachers more freely than do the high school aged students. High school teachers work with large numbers of teen aged students and see a student, typically, for an

hour a day for a semester or two. It is more difficult for high school teachers to get to know students well and to observe student growth and learning. It is even more difficult for a high school teacher to receive positive feed-back from teen-aged students. Elementary schools are generally smaller schools where a classroom teacher can get to know his or her colleagues well, with the positive sense of impact that this interaction nurtures. High schools are typically larger schools with more teachers and more students. Teacher collegiality most often occurs, if at all, within subject area departments. The teachers' sense of impact within a school requires some positive feedback from the school environment; the elementary school environment provides more feedback.

Autonomy in Scheduling Subscale

The Autonomy in Scheduling subscale was created from the Autonomy subscale of the School Participant Empowerment Scale. Autonomy was defined by Short (1991, p. 11) as, "...the teachers' sense of freedom to make certain decisions that control certain aspects of their work life. These aspects may be scheduling, curriculum, textbooks, and instructional planning..." After the subscales were re-defined by the factor analysis in this study, the three items on this subscale were: Item 5, "I have control over daily schedules," Item 30, "I can determine my own schedule," and Item 35, "I can plan my own schedule." As scheduling was considered a part of Autonomy in Short's definition, and all three items measured "scheduling" as content, this subscale was re-named "Autonomy in Scheduling." The variance was the greatest in this subscale--compared with the other 5 subscales (SD 1.07) (Table 137). The overall mean of this subscale was 3.08 indicated that teachers in the

Venture Capital Schools rated their empowerment on this dimension only slightly above the neutral midpoint of the rating scale (Table 4). The three items of this subscale measured different aspects of autonomy in scheduling. Item 5, "I have control over daily schedules," had a mean rating of 3.21. Item 30, "I can determine my own schedule," had a mean rating of 2.94, and Item 35, "I can plan my own schedule," had a mean rating of 3.08. Clearly, teachers in the Venture Capital Schools felt more autonomy in control over daily schedules (although not much, just slightly above neutral) than they did in determining their own schedules or planning their own schedules. It becomes difficult to understand how teachers can be expected to perceive themselves as professionals with so little control over the time variable in their work place.

There was a statistically significant ($p<.01$) difference by school level with an effect size (epsilon squared) of .035 on the Autonomy in Scheduling subscale. This difference was found by a two-way ANOVA by gender and teaching level. There were no statistically significant ($p<.05$) interactions by gender and teaching level. There was no statistically significant ($p<.01$) difference with an effect size of .01 or greater by gender. The mean for elementary teachers (3.41) was higher than the mean for middle school/jr. high school teachers (2.87), and the mean for high school teachers (2.80). Middle school/jr. high school teachers and high school teachers indicated that they did not have control over their school schedules (below the neutral midpoint of the scale toward "disagree"); elementary teachers reported more control, but between the neutral and the agree point of the scale. This item can almost be used as a

validity check of the scale. These differences in autonomy in scheduling are recognized as common to the current school structures.

Total Scale

The overall mean for the total School Participant Empowerment Scale was 3.83 (Table 4) with an overall standard deviation of 0.51. A statistically significant ($p<.01$) difference by school level was found by a two-way ANOVA by gender and teaching level of the Total Scale. There were no statistically significant ($p<.01$) interactions by gender and teaching level. There was no statistically significant ($p<.01$) difference by gender. The mean for elementary school teachers (3.95) was higher than the mean for high school (3.78) teachers (Table 5) with an effect size (epsilon squared) for school level on the total scale of .021.

The higher sense of empowerment by elementary teachers may be explained by the difference in the elementary school and high school environments. The elementary school generally has a smaller, more female staff of teachers. Throughout the analyses of the items and subscales of the School Participant Empowerment Scale, female teachers had higher mean scores. Although there were statistical differences between elementary teachers and high school teachers, the means of both groups were below the "agree" point of the scale. Teachers in the Venture Capital Schools in the early stages of restructuring did not have a strong sense of overall "teacher empowerment," although there was some variation across the subscale dimensions.

Summary and Conclusions

The 4084 classroom teachers in 180 Venture Capital Schools in Ohio at the initial stages of restructuring self-rated their overall sense of empowerment between the neutral midpoint (3.00) and the "agree" (4.00) point of the 5-point rating scale (3.82). The standard deviation of .51 for this overall mean indicated that the rating was fairly uniform across schools.

The three dimensions on which the teachers rated their empowerment between "agree" and "strongly agree" points of the rating scale were: Status (4.07), Professional Growth (4.19), and Self-Efficacy (4.12). Although these ratings indicated agreement with their participation and empowerment on these dimensions, they also indicated that there is room for growth. The baseline data collected from this large sample of classroom teachers suggest that, overall, the teachers perceive that they have status within their schools, their schools provide opportunities for them to grow as professionals, and they perceive that they have the skills and ability to help students learn.

The only item in the School Participant Empowerment Scale that measured the knowledge base of the teachers was item 27 on the Self-Efficacy subscale, "I have a strong knowledge base in the areas in which I teach." This item had the highest mean rating (4.41) and the lowest standard deviation (.63) of the 38 items of the School Participant Empowerment Scale. This, considered with the identification of professional knowledge as a dimension of teacher empowerment in the literature, suggests that this dimension should be included in an instrument measuring teacher empowerment.

The means of the self-ratings by the large sample of teachers on the Decision Making (3.43), Impact (3.57), and Autonomy in Scheduling (3.08) subscales were all between the scale's neutral midpoint (3.00) and "agree" (4.00). These ratings indicated that the teachers in the sample were more neutral about whether they had opportunities to participate in decision making, had opportunities to interact with colleagues and make an impact beyond their classrooms. They reported limited control over the allocation of time in the schools.

Interestingly, there were few differences by demographic variables in teachers' responses to the School Participant Empowerment Scale. There were no differences on the Decision Making and Self-Efficacy subscales. Female teachers rated the opportunities for Professional Growth within the Venture Capital Schools higher than did male teachers. Differences were found by teaching level on the Status, Impact, Autonomy in Scheduling, and Total Scale Score. Except for the Autonomy in Scheduling subscale, the differences were found between elementary school teachers and high school teachers only. Comparing teacher responses across teaching levels is somewhat problematic as the differences in the environments between elementary schools and high schools are well recognized.

There were no differences on any of the measures of teacher empowerment by the teacher demographic "years of teaching experience." Recent graduates of teacher education programs rated their empowerment no differently than did more experienced teachers. This finding indicates that professional development strategies to strengthen classroom teachers' skills and knowledge should be designed as both preservice and inservice programs. The findings from this study suggest that the inservice programs

should be designed to have greater appeal to male teachers than do the ones now available and to prepare teachers and administrators for new roles (if we are to have any hope of restructuring tomorrows' schools). Current preparation programs for teachers and administrators are not generally focusing on preparing these people to take on new and different roles in schools. The focus tends to be on roles for teachers and principals as schools have traditionally operated. The challenge is to find ways to professionally develop practicing and preservice teachers and administrators to change existing patterns of behavior. This will not be easy or quick. The data from this study indicate that the teacher in the Venture Capital Schools are struggling with these changes.

The wording of items measuring some dimensions of empowerment (Table 1); "I am given...", "I have the freedom..","I am able to...," "I have an opportunity to....;" appear to measure the environment in which the teacher works rather than the skills and knowledge that the teacher holds. To discuss the implications of these dimensions for teacher education is to assume that opportunities for teacher participation; specifically on the Decision Making, Impact, and Autonomy in Scheduling dimensions; will increase in restructuring schools. Whether this will truly come to fruition or will merely be cast aside in a few years--as many of the previous reform efforts have experienced--depends on the clear understanding that teachers and administrators have of the opportunities inherent in the Venture Capital School goals.

Shared-decision making is the most frequent description of teacher decision making in school restructuring literature. (The emphasis should, perhaps, be placed on shared). To prepare classroom teachers to participate in shared-decision making,

teacher educators should help the classroom teacher build specific and general skills for working with and within groups. Groups in restructuring environments may include other teachers, administrators, other professionals, school board members, parents, and members of the community at large. Experience and skill-development in information gathering, information synthesis, group processes, and consensus building, should be included in teacher education programs. The quality of the classroom teacher's oral and written communication also will influence his or her effectiveness in shared decision-making groups.

Shared-decision making also mandates new ways of preparing school administrators. The change that restructuring schools asks of building principals, that is, to move from being the sole decision maker in control of everything to being an instructional leader operating in a school governance environment, is a very large one. Currently, few preparation or inservice programs for school administrators present the new knowledge and skills needed for this change.

For classroom teachers to have higher scores on the School Participant Empowerment Scales' Impact subscale (Table 1), Venture Capital Schools restructuring teams need to provide more opportunities for teachers to teach other teacher, and collaborate with their colleagues. Acknowledging all of the factors that affect scheduling in the public schools, it is perhaps impractical to suggest that classroom teachers should have autonomy in scheduling, however, classroom teachers should be involved in decisions made to determine the allocation of time in their schools.

It may be past time for educational professionals to examine the fundamental structuring of schools (designed to take young people from an agrarian environment and assimilate them into the large city, factory environment of the early 1900's) and begin to creatively design schools to better accommodate the changes in the society and technology to prepare students to function in the year 2000 and beyond. The challenge is before us; the current data say we aren't prepared to meet it, at least in the sample of teachers in this study (considering that the schools and the teachers who staff them have indicated a readiness and willingness to change as well as providing some evidence of being poised to change).

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